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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/756,925	01/09/2001	Christian Quellet	12846/121488	6779

7590

04/09/2003

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EXAMINER

YU, GINA C

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 04/09/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/756,925

Applicant(s)

QUELLET ET AL.

Examiner

Gina C. Yu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-41 is/are pending in the application.
- 4a) Of the above claim(s) 11-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-10 and 28-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Claims 11-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No.15, filed on January 15, 2003.

Applicants assert that the subject matter of claims 25-27 should be included in Group I. Examiner respectfully disagrees, as the subject matter in claims 25-27 is a protective or controlled-release system, which is patentably distinct from the claimed invention in Group I, drawn to composite materials. The composite materials in Group I and the protective or controlled-release system in claims 25-27 are related as mutually exclusive species in an intermediate-final product relationship. Distinctness is proven for claims in this relationship if the intermediate product is useful to make other than the final product (MPEP § 806.04(b), 3rd paragraph), and the species are patentably distinct (MPEP § 806.04(h)). In the instant case, the intermediate product is deemed to be useful as coated composite materials and the inventions are deemed patentably distinct since there is nothing on this record to show them to be obvious variants.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 28-41 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 recites the limitation "said thermoplastic hydrophobic matrix material" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The remaining claims are rejected as depending on indefinite base claim.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 2-10 and 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr et al. (US 5183690) ("Carr") in view of Tsuei et al. (US 5589194) ("Tsuei").

Carr teaches encapsulated biologically active agents in a starch matrix. See abstract. The reference teaches that it is well known in the art to employ natural or modified starch for water-insoluble materials. See col. 1, lines 36-42; col. 3, lines 15 – 22; col. 5, lines 3 – 28. Carr also teaches that core materials "dissolved, emulsified, or otherwise dispersed in solvents or carriers" are encapsulated. See col. 3, lines 36-43, suggesting that liquid actives in emulsion form are obvious. The biological actives suitable for the invention include flavor composition, odor composition, vitamin, bactericide. See col. 3, lines 23-36. See instant claims 6-9.

For claim 10, it is generally considered prima facie obvious to combine two compounds each of which is taught by the prior art to be useful for the same purpose, in

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order to form a composition which is to be used for the very same purpose. The idea for combining them flows logically from their having been used individually in the prior art. See In re Kerhoven, 626 F.2d 848, 205 USPQ 1069 (CCPA 1980). As shown by the recited teaching, the instant claims define nothing more than the concomitant use of two biological actives for controlled-release. It would follow that the recited claims define prima facie obvious subject matter.

Carr fails to teach encapsulants in the recited droplet size or the load amount of the active.

Tsuei teaches microencapsules having water-soluble or insoluble active components dissolved or dispersed, respectively, in solid thermoplastic matrix. See abstract; col. 3, line 21 – col. 4, line 67. See also Example 7, teaching microcapsules containing beta carotene in vegetable oil. The reference also teaches that the amount of the active components and size of the microcapsule can be controlled by the prior art process. See col. 3, lines 27 – 39.

While Tsuei does not explicitly mention the specific size or the amount of the active “droplets” in the microcapsules, examiner views that, given the teaching of the reference that the amount of the actives and the size of the microcapsule can be controlled, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have discovered optimal size and amount of the active ingredients in the matrix by routine experimentation.

It is also noted that claim 28 is a product-by-process claim, in which the method steps of make the product is not given patentable weight if the product itself is

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anticipated by or obvious from prior arts. See MPEP § 2113. Only the structure implied by the steps will be considered as claim limitation. See *Id.* In this case, since the recited composite material itself is found to be an obvious variation of the microencapsules taught in Carr and Tsuei, the recited process steps will not be given patentable weight. For example, claim 28 recites method steps of extruding liquid active ingredient in a oil-in-water emulsion. There is no indication in the claims that the composite materials thus produced are different from the obvious variation of the prior arts, i.e., water-insoluble active ingredients dispersed in starch matrix.

2. Claims 38-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carr and Tsuei as applied to claims 2-10 and 28-37 above, and further in view of Bilbrey (US 5290547).

Carr and Tsuei, discussed above, fail to teach using the surfactants and the amount of the components as recited in the instant claims.

Bilbrey teaches odor masking products comprising coated oil-in-water emulsion droplets of fragrance oil for the use odor masking products. See abstract; col. 1, line 61 – col. 2, line 55. The reference teaches The size of the droplets is in the range of 2-300 μm . See col. 3, lines 11 – 26. Adding emulsifiers such as sodium lauryl sulphate, sorbitan tristearate, sorbitan trioleate or sorbitan monooleate for surfactants is disclosed in col. 4, lines 54 – 65. The amount of actives, water, surfactant, and additives in microemulsion is disclosed in col. 5, lines 29-41.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the composite materials of the combined

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references by adding the surfactants and components as suggested by Bilbrey, because of the expectation of successfully producing a uniform dispersion of active ingredients in the composite materials.

Response to Arguments

Applicant's arguments filed on January 15, 2003 have been considered but are moot in view of the new ground(s) of rejection.

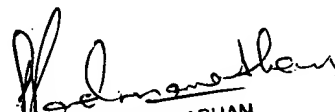
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gina C. Yu whose telephone number is 703-308-3951.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on 703-305-1877. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1234.

Gina C. Yu
Patent Examiner
April 7, 2003


SREENI PADMANABHAN
PRIMARY EXAMINER 4/7/03